

# Luma Molybdenum Wire



## Some characteristics of molybdenum

- High melting point
- High hot strength
- Low thermal expansion
- Low heat capacity
- High thermal conductivity

## Example of Applications:



Antennas



Connectors



Electronic tubes



Lighting



Spark erosion



Mesh

## Wire qualities:

710	Is Luma standard quality containing minimum 99.9 % Mo
720	Is a special quality containing minimum 99.9 % Mo, which has a good workability even in the recrystallized state.

## Properties of bare Molybdenum wire

Purity	99.9% Mo
Melting point	2620 °C
Density	10.14 g/cm <sup>3</sup>
Specific electrical resistance at 20 °C	0.052 Ohm x mm <sup>2</sup> /m
Modulus of elasticity at 20 °C	320 kN/mm <sup>2</sup>

Surface finishes	Diameter range (microns)	Elongation (%)
21 Black drawn wire	25 – 500	<2
22 Black drawn wire, straightened	25 – 500	<2
31 "21" wire, electrolytically cleaned	25 – 500	<2
32 "21" wire, straightened and electrolytically cleaned	25 – 500	<5
41 "21" wire, electrolytically etched to the final dimension	10 – 25	<2
42 "21" wire, straightened and electrolytically etched to the final dimension	10 – 25	<5
52 "31" wire, annealed in protective gas to a tensile strength of minimum 48 g/mg/200 mm	25 – 200	10 - 20
53 "31" wire, annealed in protective gas to a tensile strength of minimum 40 g/mg/200 mm	25 – 200	15 - 25
54 "53" wire with a highly polished surface	25 – 200	15 - 25

## Dimensional tolerances

### Qualities 710/21, 710/22, 710/31, 710/32, 720/21, 720/31

Diameter tolerance		Weight tolerance	
Standard	On request	Standard	On request
+/-1%	+/-0.25%	+/-2%	+/-0.5%

### Quality 710/52

Diameter tolerance		Weight tolerance	
Standard	On request	Standard	On request
+/-2.5%	+/-0.5%	+/-5%	+/-1%

### Quality 710/53, 710/54, 710/41, 710/42

Diameter tolerance		Weight tolerance	
Standard	On request	Standard	On request
+/-1.5%	+/-0.5%	+/-3%	+/-1%

**LUMA METALL** <sup>W</sup><sub>Mo</sub>  
Fine wire products

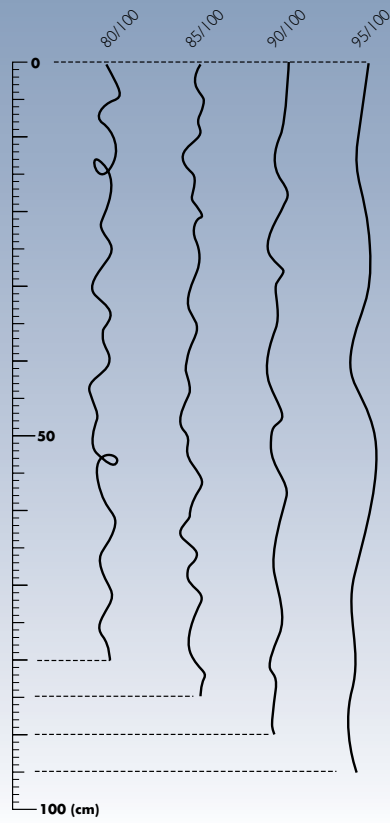
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Certified in accordance to ISO 9001:2008

**Ovality (out of roundness):**

Ø Microns	Standard	Available on request
< 15	Max 6%	Max 3%
≥ 15	Max 5%	Max 2%

**Straightness:**



**Standard tensile strength of Molybdenum:**

**Tensile strength Molybdenum**

